# IMPORTANT INSTRUCTIONS - OPERATING MANUAL

Models: AK863L, AK863FL



**Exhaust Fan with Light** 

### **READ AND SAVE THESE INSTRUCTIONS**

READ CAREFULLY BEFORE ATTEMPTING TO ASSEMBLE, INSTALL, OPERATE OR MAINTAIN THE PRODUCT DESCRIBED. PROTECT YOURSELF AND OTHERS BY OBSERVING ALL SAFETY INFORMATION. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE!

#### RETAIN INSTRUCTIONS FOR FUTURE REFERENCE.

### **GENERAL SAFETY INFORMATION**

When using electrical appliances, basic precautions should always be followed to reduce the risk of fire, electric shock and injury to person, including the following:

- 1. Read all instructions before installing or using exhaust fan.
- 2. Use this unit only in the manner intended by the manufacturer. If you have guestions, contact the manufacturer.
- Before servicing or cleaning the unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
- Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-related construction.
- 5. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA) and the American Society for Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), and the local code authorities.

**CAUTION:** FOR GENERAL VENTILATING USE ONLY. DO NOT USE TO EXHAUST HAZARDOUS OR EXPLOSIVE MATERIALS AND VAPORS.

- 6. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- 7. Ducted fans must always be vented to the outdoors.
- 8. This unit must be grounded.
- To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction dust, etc. off power unit.

**WARNING:** TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, DO NOT USE THIS FAN WITH ANY SOLID-STATE SPEED CONTROL DEVICE.

- 10. Acceptable for use over a bathtub or shower when installed in a GFCI protected branch circuit.
- NEVER place a switch where it can be reached from a tub or shower.

**WARNING:** DO NOT USE IN KITCHENS

### **SAVE THESE INSTRUCTIONS**

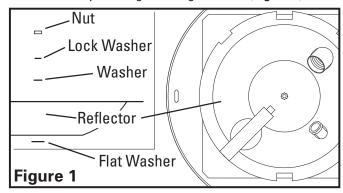
#### **INSTALLATION INSTRUCTIONS**

**CAUTION:** MAKE SURE POWER IS SWITCHED OFF AT SERVICE PANEL BEFORE STARTING INSTALLATION.

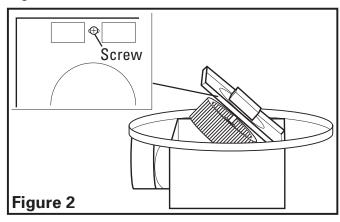
### **SECTION 1**

### **Preparing the Exhaust Fan**

- 1. Unpack fan from the carton and confirm that all pieces are present. In addition to the exhaust fan you should have:
  - 1 Grill with Light Lens
  - 1 Damper Assembly (attached)
  - 4 Mounting Rails
  - 1 Instruction/Safety Sheet
- Remove the fan's light reflector, which is secured in place with one center located screw. Also remove the lock washer washer and flat washer. Keep all parts in the carton until needed so they do not get damaged or lost (Figure 1).

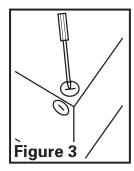


 Remove the fan's venturi assembly, which is secured in place with one screw through the venturi. Keep the venturi assembly in the carton until needed so it does not get damaged or lost (Figure 2).



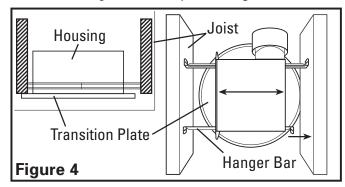
4. Choose the location for your fan. To ensure the best air and sound performance, it is recommended that the length of ducting and the number of elbows be kept to a minimum, and that insulated hard ducting be used. Larger duct sizes will reduce noise and airflow restrictions. This fan will require at least 6" of clearance in the ceiling or wall, and will mount through drywall up to 3/4" thick. The fan can be mounted directly to the joist using the mounting tabs on the side of the housing or between 16" on center joists using the 4 provided mounting rails.

 Select the most convenient electrical knockout and remove using a straight-blade screw driver (Figure 3).

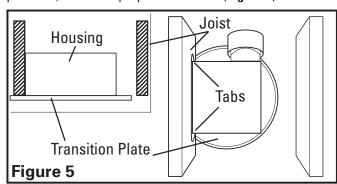


# SECTION 2 New Construction

1a. **Mounting Rail Installation:** Install the rails on the housing and position the housing next to the joist with the transition plate flush to the underside of the joist. Secure the ends of the rails with screws or nails (not included) to the joists and slide the housing into the final position **(Figure 4)**.

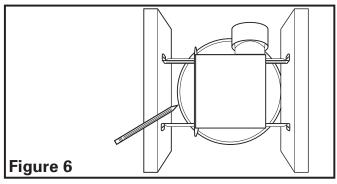


1b. **Mounting Tab Installation:** Position the fan so that the tabs rest flat against the joist with the transition plate flush to the underside of the joist. Secure with four nails or screws (not provided) to ensure proper installation **(Figure 5)**.

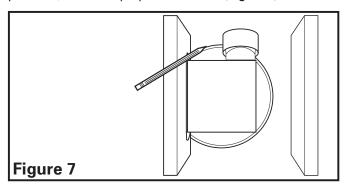


# **SECTION 3**Existing Construction

1a. Mounting Rail Installation: Set housing in position between the joist and trace an outline onto the ceiling material (Figure 6). Set housing aside and cut opening, being careful not to cut or damage any electrical or other hidden utilities. Install the rails on the housing and position the housing in the previously cut hole so that it is flush with the finished ceiling. Secure the ends of the rails with screws or nails (not included) to the joists (Figure 4).



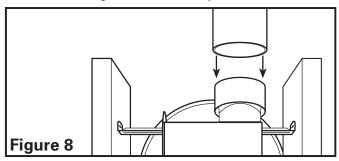
1b. Mounting Tab Installation: Position housing against the joist and trace an outline of the housing onto the ceiling material (Figure 7). Set housing aside and cut opening, being careful not to cut or damage any electrical or other hidden utilities. Place housing next to the joist and insure that it is flush with the finished ceiling. Secure with four screws or nails (not provided) to ensure proper installation (Figure 5).



# **SECTION 4** Ducting

**CAUTION:** ALL DUCTING MUST COMPLY WITH LOCAL AND NATIONAL BUILDING CODES.

 Connect the ducting to the fan's duct collar (Figure 8). Secure in place using tape or screw clamp. Always duct the fan to the outside through a wall or roof cap.



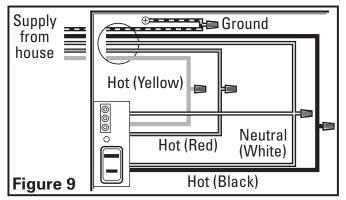
**NOTE**: If damper detaches from unit, reattach by snapping the collar back onto the unit. It is designed to only fit one way.

## SECTION 5 Wiring

**CAUTION:** MAKE SURE POWER IS SWITCHED OFF AT SERVICE PANEL BEFORE STARTING INSTALLATION.

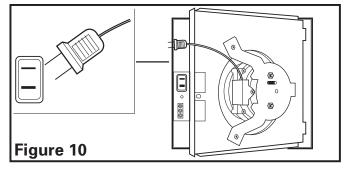
**CAUTION:** ALL ELECTRICAL CONNECTIONS MUST BE MADE IN ACCORDANCE WITH LOCAL CODES, ORDINANCES, OR NATIONAL ELECTRICAL CODE. IF YOU ARE UNFAMILIAR WITH METHODS OF INSTALLING ELECTRICAL WIRING, SECURE THE SERVICES OF A QUALIFIED ELECTRICIAN.

- Run wiring from an approved wall switch carrying the appropriate rating. One neutral (white), one ground (green or bare copper), and three hot (black, red, yellow leads connected to the switch, one for each function). Secure the electrical wires to the housing with an approved electrical connector. Make sure you leave enough wiring in the box to make the connection to the fan's receptacle.
- 2. From where you have access to the fan's junction box, connect the white wire from the house to the two white wires from the fan. Connect one hot (black) wire from the wall switch to the black wire from the fan (this is the fan control). Connect second hot (red) wire from the wall switch to the red wire from the fan (this is the main light control). Connect the third hot (yellow) wire from the wall switch to the yellow wire from the fan (this is the night light control). Connect the ground wire from the house to the green wire from the fan (Figure 9). Use approved methods for all connections.

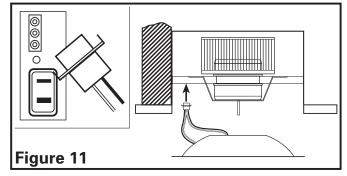


# **SECTION 6**Completing the Installation

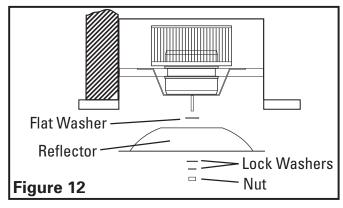
Reinstall the fan's venturi by holding it at approximately a 45 degree angle, hook the two tabs on the venturi into the slots on the housing and secure in place by tightening the venturi screw. Rotate the blower wheel by hand to ensure it spins freely. Now plug the fan motor into the receptacle (Figure 10).



Plug cord from lamp holders into the appropriate receptacle (Figure 11).



Reinstall the light reflector by securing in place on the mounting bolt with the flat washer then the reflector, two lock washers and reflector nut. Tighten nut fully (Figure 12).



### **CAUTION:** FAILURE TO SECURE THE REFLECTOR BOLT MAY RESULT IN A RATTLING OR HUMMING NOISE.

4. Install the appropriate bulbs (not included) specific to your model:

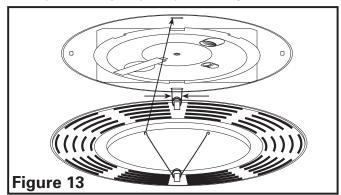
**AK863L:** Install a 100 watt maximum, type A19 medium base incandescent bulb (not included) and a 7 watt maximum type C7 (candelabra base) night light (not included).

**AK863FL:** Install a 26 watt maximum, 2 pin quad, G24-d3 fluorescent lamp (not included) and a 7 watt maximum type C7 (candelabra base) night light (not included).

Sylvania model: CF26DD/841 GE model: F26DBXT4/SPX41 Phillips model: PL-C 26W/41/ALTO

### **CAUTION:** WHEN INSTALLING GRILL, BE CAREFUL NOT TO PINCH FINGERS BETWEEN GRILL AND CEILING.

5. Install the grill by squeezing the two ends of the springs together and installing them up into the slots on the fan's housing. Push the grill up into position (Figure 13).



6. Restore power and test your installation.

### **SECTION 7**

**Use and Care** 

### **CAUTION:** MAKE SURE POWER IS SWITCHED OFF AT SERVICE PANEL BEFORE SERVICING THE UNIT.

- Cleaning the Grill: Remove grill and use a mild detergent, such as dishwashing liquid, and dry with a soft cloth. NEVER USE ANY ABRASIVE PADS OR SCOURING POWDERS. Completely dry grill before reinstalling. Refer to instructions in Section 6 Completing the Installation, to reinstall grill.
- 2. **Cleaning the Fan Assembly:** Wipe all parts with a dry cloth or gently vacuum the fan. NEVER IMMERSE ELECTRICAL PARTS IN WATER.

### **CAUTION:** ALLOW BULB TO COOL BEFORE REPLACING

Changing the Light Bulb: Disconnect power to the unit.
 Remove grill by pulling downward on grill and squeezing grill springs together to release from housing (Figure 14).

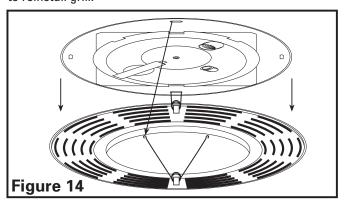
**Incandescent Bulb (AK863L):** Unscrew bulb from lamp holder and replace with a 100 watt maximum, type A19 medium base incandescent bulb.

Fluorescent Lamp (AK863FL): Remove lamp by gently rocking lamp back and forth while applying outward pressure to release the lamp from the base. Replace with a 26 watt maximum, 2 pin quad, G24-d3 fluorescent lamp.

**Night Light (AK863L, AK863FL)**: Unscrew night light bulb from socket and replace with a 7 watt maximum type C7 (candelabra base) night light bulb.

Sylvania model: CF26DD/841 GE model: F26DBXT4/SPX41 Phillips model: PL-C 26W/41/ALTO

Refer to instructions in **Section 6** Finishing the Installation, to reinstall grill.



#### **Troubleshooting Guide**

Trouble	Probable Cause	Suggested Remedy
1. Fan does not operate when the switch is on.	1a. A fuse may be blown or a circuit tripped.	1a. Replace fuse or reset circuit breaker.
	1b. Connector plug from motor is not plugged in.	1b. Turn off power to unit. Remove Grill and plug motor into receptacle in housing. Restore power to unit.
	1c. Wiring is not connected properly.	1c. Turn off power to unit. Check that all wires are connected.
	1d. Motor has stopped operating.	1d. Replace motor.
2. Fan is operating, but air moves slower than normal.	2. Obstruction in the exhaust ducting.	Check for any obstructions in the ducting. The most common are bird nests in the roof cap or wall cap where the fan exhausts to the outside.
3. Fan is operating louder than normal.	3a. Motor is loose.	3a. Turn off power to unit. Remove grill and check that all screws are fully tightened. Restore power to unit.
	3b. Fan blade is hitting housing of unit.	3b. Call your dealer for service.

#### LIMITED WARRANTY

All products manufactured by Air King Limited are warranted for one year from the date of purchase against defects in workmanship and/or material. In addition, all ventilating/exhaust fans, heaters, combination fan lights and/or heaters, and range hoods are guaranteed for five years from the date of purchase against defects in workmanship and/or material.

This warranty does not cover any labor or shipping costs or the cost of replacement components as part of routine maintenance such as: range hood grease filters, charcoal filters or combination charcoal/grease filters; replacement light bulbs in range hoods or bathroom fan/light/bulb heater combinations. As well, any damage or failure caused by abuse, misuse, abnormal usage, faulty installation, or improper maintenance will not be covered by this warranty.

In order to make a claim on this warranty, you must be the original consumer of the product. You will be required to present to Air King the original bill of sale showing: date of purchase, place of purchase and model purchased. Failure to meet these requirements will void your warranty.

Air King will not be held responsible for any bodily injury or damages to personal property or real estate whether caused directly or indirectly by the product. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages and some states do not allow limitations on how long an implied warranty lasts, so these exclusions or limitations may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary from state to state and province to province.

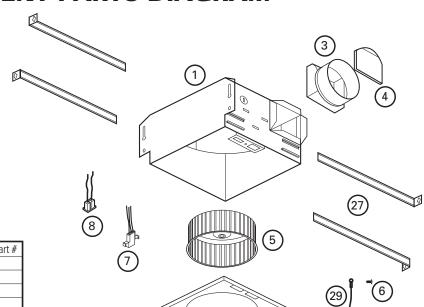
#### FOR PARTS OR TECHNICAL ASSISTANCE

Please call: 1-800-465-7300, MONDAY THROUGH FRIDAY, BETWEEN THE HOURS OF 8 AM AND 4:00 PM EST. PLEASE DO NOT RETURN PRODUCT TO PLACE OF PURCHASE.

Reference the type and style of product (located on label inside of the product) when you call. For more information please visit our website: www.airkinglimited.com

Installer:	Installation Date:
Place of Purchase:	Model Number:

### **REPLACEMENT PARTS DIAGRAM**



#	Qty.	Description	Replacement Part #
1	1	Fan Housing	5S3202001
2	5	#8 Screw	5S1999004
3	1	Collar	5S3202003
4	1	Damper	5S3202004
5	1	Blower Wheel	5S3202005
6	1	#10 Ground Screw	5S1999002
7	1	Polarized Nylon Receptacle 3P	5S3202035
8	1	Polarized Receptacle	5S1999001
9	1	Motor Plate	5S3202006
10	2	Lock Washer	5S3202007
11	1	Motor	5S2299005
12	1	Motor Bracket	5S3202008
13	2	Lock Washer	5S3202009
14	2	Motor Nut	5S3202020
15	1	Nut	5S3202021
16	1	Washer	5S3202022
17	1	Rubber Washer	5S3202023
18	1	Reflector Nut	5S3202024
19	1	Lamp Holder Assembly - AK863L	5S3202025
20	2	Screw	5S3202026
21	1	Reflector	5S3202027
22	6	Lens Screw	5S3202028
23	6	Lens Washer	5S3202029
24	2	Clip - Springs	5S3202030
25	1	Glass Lens	5S3202031
26	1	Grill	5S3202032
27	4	Mounting Rail	5S1299002
28	1	Round Transition Plate	5S3202034
29	1	14 ga Ground Wire	5S1999003
30	2	Grill Spring	5S3202033
31	1	Lamp Holder - AK863FL	5S3202040
32	1	Ballast Night Light Holder - AK863FL	5S3202041
33	2	Screw - AK863FL	5S3202042

